



PATENT

Attorney Docket No.: SAM-0201

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Jong-hyon Ahn

Examiner: Hu, S.

Serial No.: 09/879,556

Group Art Unit: 2811

Filing Date: June 12, 2001

Title: METAL INTERCONNECT LAYER OF SEMICONDUCTOR DEVICE AND
METHOD FOR FORMING A METAL INTERCONNECT LAYER

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited with the United States Post Office as First Class Mail on the date indicated below in an envelope addressed to BOX NON-FEE AMENDMENT, Assistant Commissioner for Patents, Washington, DC 20231.

12-20-02

Date

Amy Green
Amy Green

BOX NON-FEE AMENDMENT

Assistant Commissioner for Patents

Washington, D.C. 20231

AMENDMENT TRANSMITTAL

Sir:

1. Transmitted herewith is an amendment for this application.

STATUS

2. Applicant is

- ☐ a small entity. A verified statement:
☐ is attached.
☐ was already filed.
☒ other than small entity.

EXTENSION OF TERM

3. The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply.

- (a) ☐ Applicant petitions for an extension of time under 37 CFR 1.136

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Extension (months)	Fee for other than small entity	Fee for small entity
<input type="checkbox"/> one month	\$110.00	\$55.00
<input type="checkbox"/> two months	\$400.00	\$200.00
<input type="checkbox"/> three months	\$920.00	\$460.00
<input type="checkbox"/> four months	\$1,440.00	\$720.00

Fee \$ _____

If an additional extension of time is required, please consider this a petition therefor.

☐ An extension for _____ months has already been secured and the fee paid therefor of \$ _____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ _____

OR

- (b) ☒ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

FEE FOR CLAIMS

4. The fee for claims (37 CFR 1.16(b)-(d)) has been calculated as shown below:

CLAIMS AS AMENDED						
	(1)		(2)	(3)		
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT NUMBER EXTRA	RATE	FEE
TOTAL CLAIMS	42	minus	42	0	x \$18	\$0
INDEPENDENT CLAIMS	6	minus	6	0	x \$84	\$0
MULTIPLE DEPENDENT CLAIM ADDED	No				\$280	
				TOTAL		\$0
If applicant has small entity status under 37 CFR 1.9 and 1.27, then divide total fee by 2 and enter amount here.				SMALL ENTITY TOTAL		

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(c) ☒ No additional fee for claims is required.

OR


(d) ☐ Total additional fee for claims required \$_____

FEE PAYMENT

5. ☐ Attached is a check in the sum of \$_____
☐ Charge Deposit Account No. _____ the sum of \$ _____.
A duplicate of this transmittal is attached.

Respectfully submitted,

Date: 12/20/02
Mills & Onello LLP
Eleven Beacon Street, Suite 605
Boston, MA 02108
Telephone: (617) 994-4900
Facsimile: (617) 742-7774


Steven M. Mills
Registration Number 36,610
Attorney for Applicant

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BOX NON-FEE AMENDMENT

Assistant Commissioner for Patents

Washington, D.C. 20231

TRANSMITTAL LETTER

Sir:

Enclosed herewith for filing in the above-identified patent application please find the following listed items:

1. Amendment Transmittal;
2. Amendment A in response to Office Action mailed on September 20, 2002; and
3. Return Postcard.

In connection with the foregoing matter, please charge any additional fees which may be due, or credit any overpayment, to Deposit Account Number 50-1798. A duplicate copy of this letter is provided for this purpose.

Respectfully submitted,

Date: 12/20/02
Mills & Onello LLP
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Steven M. Mills
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Registration Number 36,610
Attorney for Applicant

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PATENT
Attorney Docket No.: SAM-0201
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BOX NON-FEE AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

AMENDMENT A

Sir:

This is in response to the Office Action mailed on September 20, 2002.

Please amend the application as follows:

In the Claims

Please amend the claims as follows:

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1. (Amended) A metal interconnect layer for a semiconductor device, comprising:
an elongate trench formed in an interlevel dielectric (ILD) film;
a conductive layer forming a conductive line in the elongate trench, the
conductive line having, in cross-section, a first upper portion having a first width and a
second lower portion under the first upper portion, the second lower portion having a
second width wider than the first width.